ABSTRACT OF THE DISCLOSURE

ATM edge node switching equipment utilized an IP-VPN function, which can achieve a low cost VPN compared with an L2-VPN in which a user terminal is connected to the ATM edge node switching equipment by a mesh connection, is provided, by connecting the user terminal and the ATM edge node switching equipment with one leased line. The ATM edge node switching equipment provides an IP data packet distribution function, which distributes each of IP data packets to each of the plural user terminals, by utilizing the IP-VPN function by using a destination IP address of each of the plural user terminals. The IP-VPN function provides an inputted IP data packet analyzing section that obtains an input VC (virtual channel) number and also obtains a VPN-ID (virtual private network-identifier) for distinguishing each of the user terminals, a QOS (quality of service) type set by QOS information composed of a protocol type, a destination service port number, a source address service port number, and a code point, from a header part of the IP data packet transferred from one of the user terminals. And further the IP-VPN function provides a routing information retrieving section that retrieves a routing of a VC for a destination address by using the destination IP address, the VPN-ID, and the QOS type, and sets the routing of the VC for the destination address. With this, the number of lines connecting to the user terminal and the ATM edge node switching equipment is reduced compared with the L2-VPN being a general leased line connection, and the connection cost can be reduced. And the same QOS at the L2-VPN can be secured at the ATM edge node switching equipment utilized the IP-VPN function.